**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Currently amended) A device for mixing at least two media, having at least one mixing chamber, wherein a wall of the at least one mixing chamber has at least one temperature control channel, which is separate and discrete from the at least one mixing chamber, for feeding or removing energy to or from the at least one mixing chamber.

2. (Previously presented) The device as claimed in claim 1, wherein energy can be fed to or removed from the at least one mixing chamber electrically through the at least one temperature control channel.

3. (Previously presented) The device as claimed in claim 1, wherein energy can be fed to or removed from the at least one mixing chamber convectively by means of a temperature control medium through the at least one temperature control channel.

4. (Currently amended) The device as claimed in claim 1, wherein the device has at least one reaction chamber~~, in particular in channel form,~~ for a chemical reaction between the at least two media.

5. (Currently amended) The device as claimed in claim 4 ~~1~~, wherein a wall of the at least one reaction chamber is provided with at least one catalyst material or consists of a catalyst material.

6. (Currently amended) The device as claimed in claim 4 ~~1~~, wherein at least one mixing chamber is integrated in the at least one reaction chamber.

7. (Previously presented) The device as claimed in claim 1, wherein at least one mixing chamber has a main direction of flow through it ~~and in particular is designed in channel form~~.

8. (Currently amended) The device as claimed in claim 7 ~~1~~, wherein at least one temperature control channel runs substantially parallel to the main direction of flow of the at least one mixing chamber.

9. (Currently amended) The device as claimed in claim 7 ~~1~~, wherein at least one temperature control channel runs substantially transversely with respect to the main direction of flow of the at least one mixing chamber.

10. (Currently amended) The device as claimed in claim 1, wherein at least one mixing chamber is provided with at least one turbulator~~, which is designed in particular as a transverse web~~.

11. (Currently amended) The device as claimed in claim 3 ~~1~~, wherein an inlet is provided for each of the at least two media and ~~if appropriate~~ also for the temperature control medium, and wherein an outlet is provided for in each case at least one mixing and/or reaction product and ~~if appropriate~~ for the temperature control medium.

12. (Currently amended) The device as claimed in claim 4 ~~1~~, wherein the wall of the at least one mixing chamber comprises a plurality of plates and/or sheets bearing against one another, ~~and in that in particular the device for mixing at least two media comprises a plurality of plates and/or sheets bearing against one another,~~ with the at least one temperature control channel, and the at least one mixing chamber and ~~if appropriate~~ the at least one reaction chamber being formed by cutouts in the plates or sheets.

13. (Currently amended) The device as claimed in claim 12 ~~1~~, wherein ~~the~~ two outermost plates of the plurality of plates can be connected to one another by means of a holding device.

14. (Currently amended) The device as claimed in claim 12 ~~1~~, wherein at least one of the plurality of plates or sheets is between 0.05 mm and 1.5 mm~~, in particular between 0.2 mm and 1.5 mm,~~ thick.

15. (Currently amended) The device as claimed in claim 12 ~~1~~, wherein the cutouts in the plurality of plates or sheets are between 1 mm and 10 mm wide~~, in particular between 2 mm and 10 mm wide~~.

16. (Currently amended) The device as claimed in claim 1, wherein at least one component of the device consists of a metal, ~~in particular titanium or tantalum,~~ of a stainless steel, of an alloy, ~~in particular a nickel alloy,~~ or of a plastic.

17. (Currently amended) The device as claimed in claim 1, wherein the device is brazed~~, in which case~~ with a brazing

solder ~~in particular~~ which contains ~~or consists of~~ nickel, gold, silver and/or copper.

18. (Currently amended) The device as claimed in claim 1, wherein the device is welded~~, in particular diffusion-welded,~~ or adhesively bonded.

19. (New) The device as claimed in claim 4, wherein the reaction chamber is in channel form.

20. (New) The device as claimed in claim 7, wherein the reaction chamber is in channel form.

21. (New) The device as claimed in claim 10, wherein the turbulator is a transverse web.

22. (New) The device as claimed in claim 14, wherein the sheets or plates are between 0.2 mm and 1.5 mm thick.

23. (New) The device as claimed in claim 15, wherein the cutouts are between 2 mm and 10 mm wide.

24. (New) The device as claimed in claim 18, wherein the device is diffusion welded.